

(b) generating two-color print data by converting the color of each pixel in the reduced-color digital image data to a main color, a secondary color, or a background color according to the following rules:

(1) for each pixel whose three primary colors each exhibit its first intensity convert that pixel to the main color,

(2) for each pixel whose three primary colors each exhibit its second intensity convert that pixel to the background color, and

(3) for each pixel that does not satisfy either of conditions (1) or (2) convert that pixel to the secondary color.

15. (New) The method of claim 14, wherein

the color of each pixel in the full-color digital image data is defined by the first, second and third primary colors, each primary color capable of exhibiting one of a plurality of intensities, and

step (a) comprises comparing the intensity of the first primary color of each pixel in the full-color digital image data with a first threshold, comparing the intensity of the second primary color of each pixel in the full-color digital image data with a second threshold, and comparing the intensity of the third primary color of each pixel in the full-color digital image data with a third threshold, and reducing the color of each pixel in the full-color digital image data based on the results of the comparisons.

16. (New) The method of claim 14, wherein the first, second and third primary colors are red, green, and blue.

17. (New) The method of claim 14, wherein the first, second and third primary colors are cyan, magenta, and yellow.

18. (New) A method for generating two-color print data, comprising the steps of:

(a) reducing full-color digital image data to reduced-color digital image data by reducing the color of each pixel in the full-color digital image data to one of a predetermined number of colors; and

(b) generating two-color print data by converting each color in the reduced-color digital image data to a main color, a secondary color, or a background color, wherein the converting is performed according to one of the following:

(1) uniformly converting each color in the reduced-color digital image data based on predefined conditions, or

(2) converting each color in the reduced-color digital image data based on a changeable conversion table linking each color to the main color, secondary color, or background color.

19. (New) The method of claim 18, wherein

in step (a) each color in the full-color digital image data is reduced to a color defined by first, second and third primary colors, each primary color capable of exhibiting either a first intensity or a second intensity, and

step (b)(1) generates two-color print data by converting each color in the reduced-color digital image data to the main color, the secondary color, or the background color according to one of the following rules:

(1) for each color whose three primary colors each exhibit its first intensity convert that pixel to the main color,

(2) for each color whose three primary colors each exhibit its second intensity convert that pixel to the background color, and

(3) for each color that does not satisfy either of conditions (1) or (2) convert that pixel to the secondary color.

20. (New) A two-color print data generating apparatus, comprising:

a reduced-color image data generating unit configured to reduce full-color digital image data to reduced-color digital image data by reducing the color of each pixel in the full-color digital image data to one of eight colors, wherein the color of each pixel in the reduced-color digital image data is defined by first, second and third primary colors, each primary color capable of exhibiting either a first intensity or a second intensity; and

a print data generating unit configured to generate two-color print data by converting the color of each pixel in the reduced-color digital image data to a main color, a secondary color, or a background color according to the following rules:

(1) for each pixel whose three primary colors each exhibit its first intensity convert that pixel to the main color,

(2) for each pixel whose three primary colors each exhibit its second intensity convert that pixel to the background color, and

(3) for each pixel that does not satisfy either of conditions (1) or (2) convert that pixel to the secondary color.

21. (New) The apparatus of claim 20, wherein

the color of each pixel in the full-color digital image data is defined by the first, second and third primary colors, each primary color capable of exhibiting one of a plurality of intensities, and

the reduced-color image data generating unit is further configured to compare the intensity of the first primary color of each pixel in the full-color digital image data with a first threshold, compare the intensity of the second primary color of each pixel in the full-color digital image data with a second threshold, and compare the intensity of the third primary color of each pixel in the full-color digital image data with a third threshold, and reduce the color of each pixel in the full-color digital image data based on the results of the comparisons.

22. (New) The apparatus of claim 20, wherein the first, second and third primary colors are red, green, and blue.

23. (New) The apparatus of claim 20, wherein the first, second and third primary colors are cyan, magenta, and yellow.

24. (New) A two-color print data generating apparatus, comprising:

a reduced-color image data generating unit configured to reduce full-color digital image data to reduced-color digital image data by reducing the color of each pixel in the full-color digital image data to one of a predetermined number of colors; and

a print data generating unit configured to generate two-color print data by converting each color in the reduced-color digital image data to a main color, a secondary color, or a background color, wherein the converting is performed according to one of the following:

(1) uniformly converting each color in the reduced-color digital image data based on predefined conditions, or

(2) converting each color in the reduced-color digital image data based on a changeable conversion table linking each color to the main color, secondary color, or background color.

25. (New) The apparatus of claim 24, wherein

the reduced-color image data generating unit is configured to reduce each color in the full-color digital image data to a color defined by first, second and third primary colors, each primary color capable of exhibiting either a first intensity or a second intensity, and

the print data generating unit is configured to generate two-color print data by converting each color in the reduced-color digital image data to the main color, the secondary color, or the background color according to one of the following rules:

(1) for each color whose three primary colors each exhibit its first intensity convert that pixel to the main color,

(2) for each color whose three primary colors each exhibit its second intensity convert that pixel to the background color, and

(3) for each color that does not satisfy either of conditions (1) or (2) convert that pixel to the secondary color.

26. (New) A data storage medium containing a program of instructions for directing a machine to perform a method of generating two-color print data, the program of instructions comprising:

(a) instructions for reducing full-color digital image data to reduced-color digital image data by reducing the color of each pixel in the full-color digital image data to one of eight colors, wherein the color of each pixel in the reduced-color digital image data is defined by first, second and third primary colors, each primary color capable of exhibiting either a first intensity or a second intensity; and

(b) instructions for generating two-color print data by converting the color of each pixel in the reduced-color digital image data to a main color, a secondary color, or a background color according to the following rules:

(1) for each pixel whose three primary colors each exhibit its first intensity convert that pixel to the main color,

(2) for each pixel whose three primary colors each exhibit its second intensity convert that pixel to the background color, and

(3) for each pixel that does not satisfy either of conditions (1) or (2) convert that pixel to the secondary color.

27. (New) The data storage medium of claim 26, wherein

the color of each pixel in the full-color digital image data is defined by the first, second and third primary colors, each primary color capable of exhibiting one of a plurality of intensities, and

instructions (a) comprise comparing the intensity of the first primary color of each pixel in the full-color digital image data with a first threshold, comparing the intensity of the second primary color of each pixel in the full-color digital image data with a second threshold, and comparing the intensity of the third primary color of each pixel in the full-color digital image data with a third threshold, and reducing the color of each pixel in the full-color digital image data based on the results of the comparisons.